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9/30/97

COLLECTING USER FEES ON NATIONAL FOREST RECREATION SITES

AN ADMINISTRATIVE STUDY

U.S. DEPARTMENT OF AGRICULTURE

FOREST SERVICE

CALIFORNIA REGION

1963

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INTRODUCTION

Charging for use of developed recreation sites such as campgrounds, picnic grounds, swimming beaches and boat ramps has become a commonly accepted practice among public agencies responsible for providing recreation facilities for the general public. The users of recreation areas have almost universally accepted the premise that they should pay a reasonable fee for the use of sites where special facilities are provided for their comfort and convenience.

It is also generally accepted among public agencies that charges for the use of recreation facilities should be high enough to cover the major portion of the maintenance and operating costs of the facilities, although it is not expected the charge will always cover amortization of investment costs of facilities or land.

No detailed economic studies have been made to determine what the fee should be for any given area. Generally a party fee of $1.00 per day for camping and 50 cents per day for picnicking has been acceptable to the users. Usually this has been sufficient to defray operating costs and to provide a small profit to cover amortization costs in the more popular areas.

The Forest Service has furnished free recreation facilities on campgrounds, picnic sites and such areas for many years. But as facilities are improved and demands increase, it seems probable that charges will some day be universally required for the use of developed National Forest recreation sites.

Therefore in 1960, the California Region of the Forest Service began an administrative study of the cheapest and most efficient methods and means of collecting fees for the use of developed sites.

A preliminary report was prepared early in 1962 covering the study through 1961, entitled "Charging for Use of National Forest Recreation Sites".

Through 1961 the study was confined to four campgrounds, one picnic-swimming site, and one boat ramp. In 1962, the study was expanded to include sixteen campgrounds, four picnic or swimming sites and one boat launching site.

FEE COLLECTION METHODS

The collection of recreation user fees may be divided into two general classes — manual and mechanical. When using the former method, paid attendants are hired to collect fees, usually at entrance gates. In some cases, the attendants visit the area at periodic intervals to collect fees and issue permits in accordance with posted explanatory signs.

A good deal of experience has been gained in manual collection in past years, but no detailed studies have been found for comparison with other methods.

No previous record of experience is available in the use of mechanical aids for fee collection in recreation areas other than the preliminary study in 1961 mentioned above.

The two methods, mechanical and manual, were tested in the California National Forests during 1961 and 1962. Each has advantages and disadvantages.

THE MANUAL METHOD

Manual methods of collecting user fees at recreation sites have been used for many years in county, state and National parks and similar areas. The most common approach has been that of stationing a paid attendant at the entrance to the site or area. The attendant collects the advertised fee and issues a use permit or receipt of one form or another.

Early in the 1950's, fees were collected at some campgrounds in the National Forests of the California Region. Results were disappointing. Collection costs were so high, that after a short time the practice was abandoned and a few of the sites were turned over to concessionaires for operation.

In 1961, despite the disappointing results of the 1950's, a decision was made to operate a large, fully developed campground in a popular area on a charge basis. The objective was to gain information regarding manual operation of a charge system and to compare that method with self-service systems to be tried elsewhere.

Pinecrest Campground on the Stanisalus National Forest was selected for this operation. This campground, in a heavily used area, contains 200 family units and has a single entrance and exit.

The campground had been brought up to modern Forest Service standards prior to the 1961 recreation season. Roads and parking spurs were paved, modern sanitary facilities were installed, family units consisting of a table and stove were constructed, and water was developed. Showers and washrooms were not provided.

The user fee was set at $1.00 per day per camp unit. Collection was started in the spring of 1961 and was continued through the summer of 1962.

During 1961, the campground was used by 4,921 camper parties. This provided experience to improve the efficiency of operation and the use of man-power during 1962.

Collection and information service was provided up to twelve (12) hours per day, seven (7) days per week. To do so, two men were required. During 1961, attendants estimated that about 50 percent of their time was spent collecting fees and the rest giving information.

The combination of collection and information services often resulted in congestion during rush hours because of the time spent answering questions. Although attendants were able to alleviate the problem somewhat during 1962, it can be eliminated completely only by separating collection and information services.

During 1962, the campground was operated on a charge basis from May 25 through October 15. During this period about 4,000 tickets for varying lengths of time were sold covering 14,742 party days of use. Total use for the period came to 72,236 visitor days. The average size of party was 4.9 persons, somewhat higher than for other National Forest sites.

Costs of operating the charge system totaled $4,001, 27.2 percent of total receipts. Labor accounted for $3,590 of this cost. The average daily times of attendants was distributed as follows:

Selling tickets, and other fiscal duties----------9 hours

Checking camps for valid tickets, etc. ----------3 hours

Answering questions and other public relations are included in the above hours.

MECHANICAL METHODS

As early as 1958, the California Region became interested in the possibilities of various mechanical devices which were available or becoming available on the market. It was recognized that if charges are to be made for the use of recreation sites, collection of fees and issuance of permits or receipts

must be economical and afford a minimum of inconvenience to the public. Therefore, mechanical devices for the purpose must be simple to operate and be reasonably free of mechanical troubles which might cause breakdowns. Many of these devices were examined as to their possible adaption to use in implementing a charge system in campgrounds, picnic sites and similar public use areas. A summary of experience with various devices follow.

COIN OPERATED GATES

Prior to 1961, it was found that coin operated road gates adaptable for use in recreation sites were available from at least two manufacturers. One of these was selected on a lease purchase agreement and put into operation at Pope Beach on the Eldorado National Forest in 1961, although there were several problems to solve, the success of automatic gate collection encouraged the expansion of their use. Therefore, additional units were purchased and put into operation during 1962. These were located as follows:

Baldwin Beach, Eldorado National Forest

Charlton Picnic Ground, Angeles National Forest

Kiva Picnic Ground, Eldorado National Forest

Automatic gates are manufactured to be operated with coins or impressed cards for seasonal use. However, no cards were issued or used in the study. One of the requirements of these installations is that they must keep a record of the number of cars entering or leaving the site and reject coins for entrance when the sites are occupied. Electric power is necessary within reasonable distances of the installation to operate the mechanism.

Experience during 1961 and 1962 indicates there is a period immediately after installation when the gates must be monitored closely. In spite of quality control by the manufacturer, "bugs" creep into the operation which must be corrected. After the initial

difficulties were ironed out the gates operated according to expectations. Attendents must check the gates occasionally, and must be trained to make simple adjustments when necessary. Gates used during the 1961-1962 study were equipped with coin chutes which operate on a 50 cent piece or any combination of nickles, dimes and quarters totaling 50 cents. During 1962, the Pope Beach installation was put into operation about June 1, the others about July 15, and all were operated to the end of the recreation season. No effort was made to make change for the user except to alert nearby commercial establishments. No problems were encountered in this respect.

Total capacity at one time of the four installations was 512 cars or parties ranging from 41 at Kiva to 210 at Pope Beach.

During the 1962 season 26,000 cars were registered through the four gates with a gross return of $13,000 plus. Due to some electronic problems the registered number of entries often varies from a tally of the coins deposited. This is a problem which probably can be corrected.

The cost of operating the gate installations exclusive of other normal recreation site policing and management amounted to $1,700 or 13 percent of the gross receipts.

Coin receptacles are emptied each evening to avoid possibility of vandalism or theft during the hours of darkness. Most sites were closed to entry after 9:00 P.M.

Each gate installation costs about $4,000.

TICKET VENDING MACHINES

Devices to dispense tickets are numerous and of varying complexities. There are many on the market which were examined for adaptation to use in recreation areas. A rotary type machine which dispenses from a continuous chain of tickets was selected because of its more positive action in dispensing a single ticket. This type was available on bid from only one

DORABELLE CAMPGROUND
Operated by U.S. Forest Service
Only one family per camp unit.
Ticket expires
purchase.
There is no charge for use of picnic

manufacturer. Non-rotary types dispense from a stack of separate tickets with the ever-present chance of more than one ticket being discharged with one coin operation.

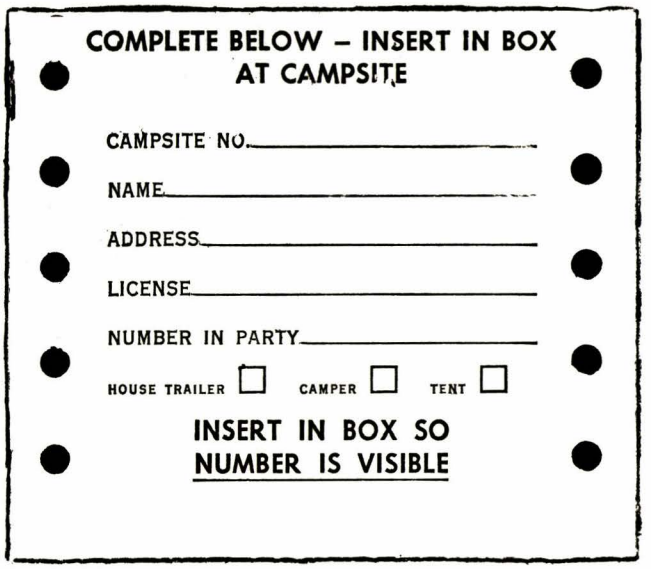
For Forest Service purposes, to institute a daily charge of 50 cents for day use sites and $1.00 for camping sites, a coin operated device to take one or two 50 cent pieces was desired. The manufacturer was willing to provide machines with either one or two 50 cent piece coin plungers for study.

During 1961 and 1962 machines were purchased for fifteen (15) campgrounds, one (1) picnic ground and one (1) boat launching ramp. Two extra machines were purchased for replacements due to damage by accident or vandalism. All but one of these were equipped for $1.00 operation. One was equipped for 50 cents operation for use at a picnic ground.

Machines purchased in 1962, with minor changes dictated by operating experience, were mechanically the same as those purchased in 1961.

1962 costs came to approximately $250 per machine, the price varying slightly with the delivery point. Installed, the units cost about $300.

Tickets



It was found that standard double-punch ticket stock manufactured for the machine could be prepared and printed to service Forest Service needs. The tickets are numbered for the days of the month and bear serial numbers to facilitate accounting. For convenience in handling, tickets are put up in packets of 300 for each day and 9,300 per box. Tickets not needed one month are used on the same date the following month. Each ticket is printed on the reverse so that the user can enter his name, address, license number and other data. This provides a protection to the user as well as data on the use of the site for administrative purposes.

Ticket Box

The use of tickets from vending machines require a means to post the tickets visibly so that attendants can check to see that the user of each has paid his fee. In the case of the boat launching site this was accomplished simply by providing that the ticket be visibly displayed in a locked car as in a self-service city parking lot. In campgrounds where the user makes intermittent use of his car, other methods were needed. For this purpose the Forest Service developed a special ticket display box. One was installed

at each camp or picnic unit so as to be readily visible from the service road. The box is made of either metal or plastic, with a glass or plexiglass front. Because plexiglass does not break as easily as glass, it is superior for this purpose.

The success of the ticket box is dependent on the arrangement of the angle of the chute at the top through which the ticket is dropped and the angle of the floor of the box where the ticket comes to rest.

The proper combination makes each ticket fall on top of tickets dropped earlier at an angle readily visible through the glass or plexiglass. The box is fastened to a three foot post as illustrated in the appendix. The average cost of each ticket installed is about $4.00.

In California, it is not necessary to protect ticket boxes or vending machines from the weather since summer rains are limited and of short duration. In other areas, it may be necessary to protect them by a roof or other means. Ticket boxes and machines are removed and stored during the non-use season.

Changing Money

Few recreation sites are close to stores or other places where money can be changed. Some people do not have a supply of 50 cent pieces available upon arrival. To solve this with minimum inconvenience, a memorandum slip was printed and made available at the vending machines.

MEMORANDUM

To be used **when you do not have change.**
Attendant will contact you.

Name.....License No. .....

Occupying camp unit No.....
Deposit in machine in slot marked **envelopes.**

After selecting a campsite and finding he needs change, the user notes the number of his camp unit on a slip and drops it in the vending machine in a slot provided for that purpose. The campground attendant picks these up on his regular rounds and makes change at the indicated units. Then the user can purchase his ticket at the machine in the regular manner. It was found that after campgrounds have been in operation a short while, campers often make change among themselves. This reduced the time required of the attendants for this purpose.

Operating Procedures

In day use areas tickets are placed in the machine the evening before, dated the next use day. The machine is serviced with the next day's tickets and the day's receipts are removed each evening thereafter. A record of the serial numbers of the ticket is kept so that tickets are not used on a given day can be used on the same numbered day the following month.

In campgrounds a ticket is good from 9:00 A.M., one day to 2:00 P.M., the next day. The camper is required to purchase a new ticket each day. From experience in 1961 the following procedure was found to be the most effective and expedient.

The attendant arrives at the campground at 8:30 A.M., and checks the vending machine for memoranda for campers who are unpaid and require change. At this point the machine contains tickets bearing the current date. They will expire at 2:00 P.M. He then proceeds through the campground checking ticket boxes to see that each party has a valid ticket. Enroute he makes change for those not paid up to date and instructs them to purchase a ticket immediately. After making the rounds of the campground, he proceeds to the vending machine, and makes sure that those needing currently dated tickets have purchased them. He then (9:00 A.M.) services the machine with tickets dated the next day. Campers who will stay another night may then purchase a new ticket.

At 4:00 P.M., the attendant again visits the campground. He makes the rounds, then removes the days receipts. He is also available to make change for campers at the vending machine at that time. The morning and afternoon visits are advertised on the camp bulletin board.

The afternoon visit is necessary to remove money from the machine. It is important that it be well known that the machines are empty or nearly empty at night to discourage thieving or vandalism.

Operating Costs - Ticket Vending Machines

Costs vary with the size of the recreation site, the caretaker, and the distance from post offices and ranger stations. In the National Forests receipts must be mailed periodically to Regional Fiscal Agents by postal money order.

In a typical 88 unit campground, it took 2 hours daily to check for valid tickets, put new tickets in the machine, make change, keep records, and forward receipts to the Fiscal Agent.

Costs of the 1962 operation amounted to 9 percent of the receipts collected. A caretaker who likes to chat will spend more time than a less gregarious individual. From experience during 1961-1962, it is reasonable to expect that once a machine ticket vending system is in operation, collection costs should not exceed 10 percent of receipts including costs of maintaining machines and ticket boxes even on smaller sites. It seems reasonable, too, that one caretaker can service a series of small campgrounds located close together as readily as he can service one large one. Investment costs in machines would of course be higher.

PARKING METERS

The ordinary parking meters used by most cities for street parking were considered in 1961 and 1962. They were found then to have enough drawbacks to eliminate them for study purposes for the present due to reported high investment and maintenance costs and serious operating limitations. None were available to suit the special nature of recreation site use. However, during 1962 further work has been done to adapt city type parking meters to accommodate various coin sizes and to dial time periods up to 72 hours. Two companies now have machines which will operate with quarters and half dollars. These may be available at around $50. Thus the earlier limitations of parking meters have been met and this method of collection has promise. It may be the best means of collection in small campgrounds (under 10 units). A separate meter would be required at each family unit.

ADVANTAGES AND DISADVANTAGES

MANUAL SYSTEMS

Advantages	Disadvantages
Personnel readily available to give information.	Costly to operate (27.2 percent of receipts).
A current record can be kept of users.	Some people resent seeing paid attendants waiting to collect from them during slack periods.
Presence of forest officers give public feeling of security.	Refunds are necessary when a camper decides to cut his stay short.
User can pay for several days in advance.	Auditing of records and receipts are time consuming.
No problem in changing money.	
Gives accurate record of use.	

AUTOMATIC GATES

Readily adaptable to day use sites such as beaches and picnic grounds.	Unreliable during lightning storms.
Collection costs are low.	Coin and electronic mechanism sensitive, and tallys are not reliable.
Refunds are unnecessary	Can only be used where electric power is available.
Attendants are free to do other work most of the day.	Occasionally, damage results from two cars attempting entrance on one coin or parties try to work gate with improper coins.
User has readily accepted this method.	Gate needs to be some distance from use area to avoid children climbing or playing on it.
	Not adaptable to overnight use or under conditions where user needs to come and go from site.
	Not adapted to cars drawing trailers.

TICKET VENDING MACHINE

Advantages

Cheapest method of collection tried so far.

Attendants free to carry on other work most of day.

User has readily accepted this method.

Auditing is simple through use of serially numbered tickets.

Machines can be used in remote areas and on sites up to 120 units.

Noticeable reduction in clean-up. The name and address on ticket may be reason.

Vandalism is no problem when machine is properly installed and serviced.

Gives accurate record of user.

Disadvantages

Arrangements necessary to make change and provide user with correct coins, especially in remote locations.

Payment cannot be made in advance, a new ticket must be purchased each day.

CONCLUSIONS

1. The results of the 1961 and 1962 experience strengthened the conclusion that mechanical self-service methods of collecting for use of recreation sites is cheap and feasible.

2. Automatic gates are practical for day use sites where electricity is available and "going and coming" is not a necessary element of site use.

3. Ticket dispensing machines are satisfactory for campgrounds larger than 20 units, and may be feasible for smaller sites if several are within a range of distance reasonable for operation by a single attendant. For campgrounds over 120 units, more than one machine may be necessary.

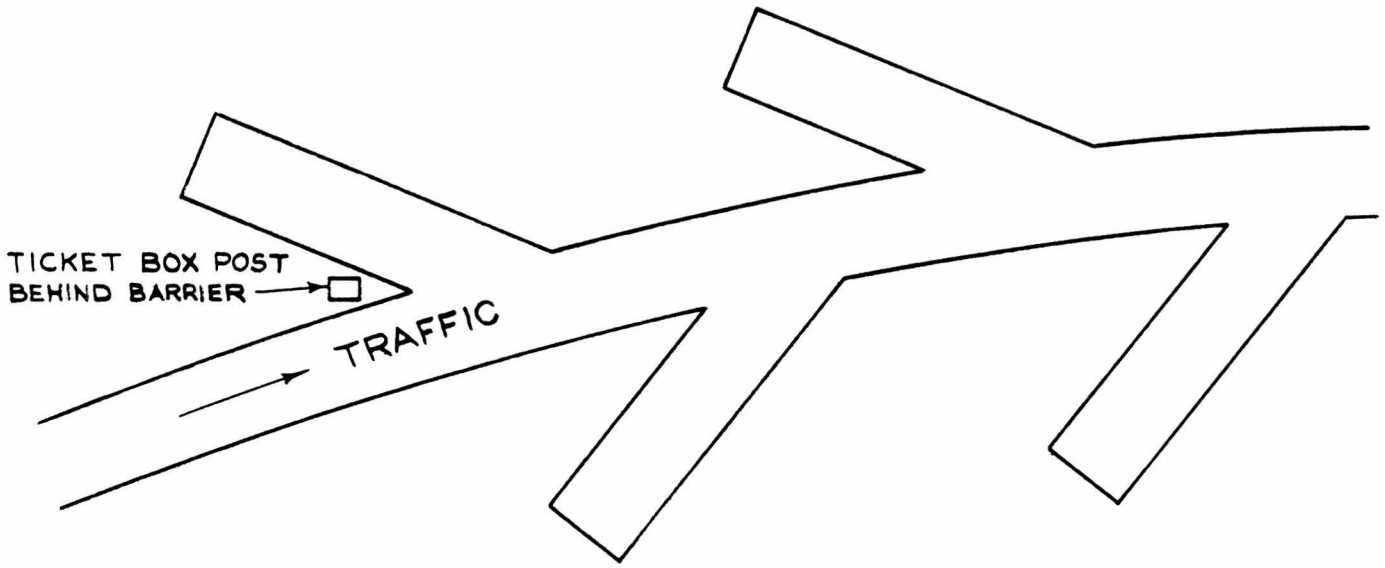
4. Ticket dispensing machines are satisfactory for parking lots in conjunction with boat launching sites.

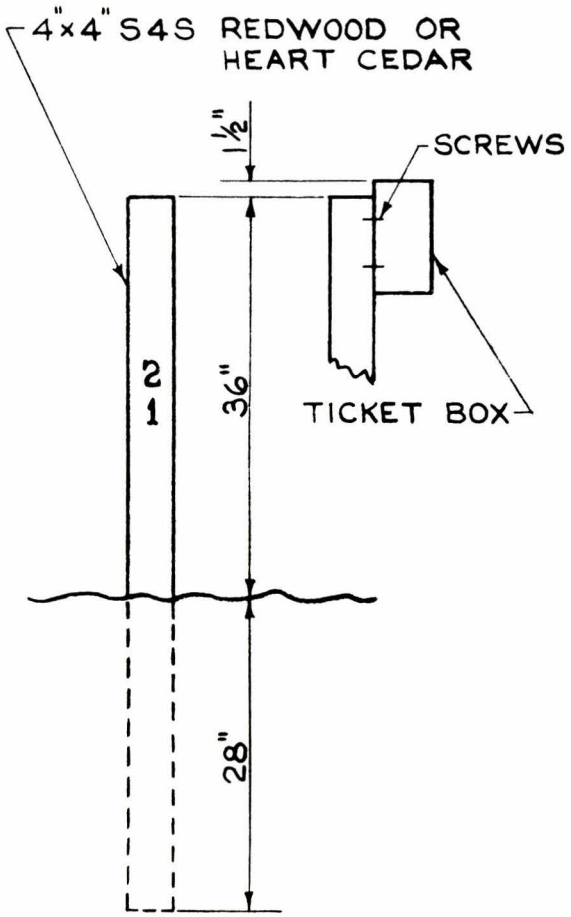
5. Further study is needed to determine the upper limit in number of family units operable by a single ticket machine. Speed of operation may be a problem during rush periods in large installations.

6. Since 1961 some work has been done to adopt street parking meter use in small recreation sites. Further study is planned to work out operating procedures.

AGRICULTURE—FOREST SERVICE—SAN FRANCISCO

PLANS FOR INSTALLING TICKET BOXES





NOTES

POSTS TO BE CUT FROM 4"x4"x16' S4S - 3 POSTS PER TIMBER

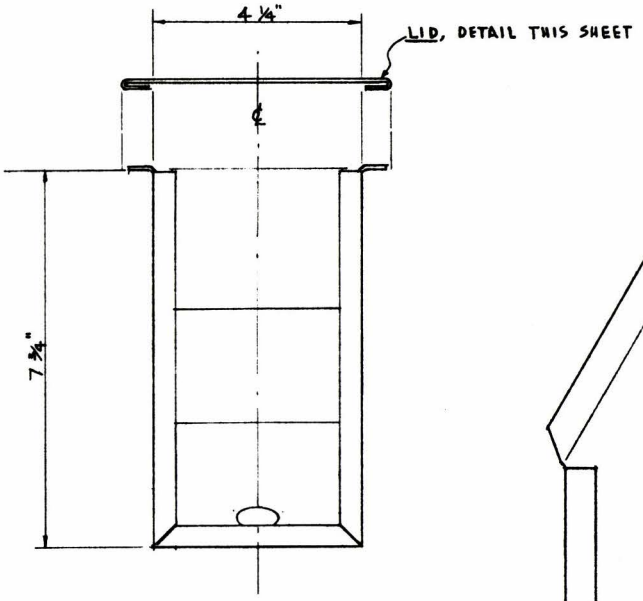
POSTS TO BE SET 28"

POSTS TO BE SET BEFORE ATTACHING TICKET BOXES

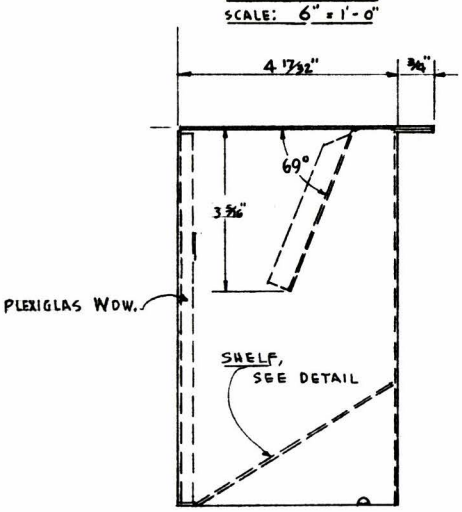
ROUT Nº OF CAMP UNIT ON FRONT OF POST 6" BELOW BOTTOM OF BOX

USE 2" WHITE PAINT IN NUMBERS

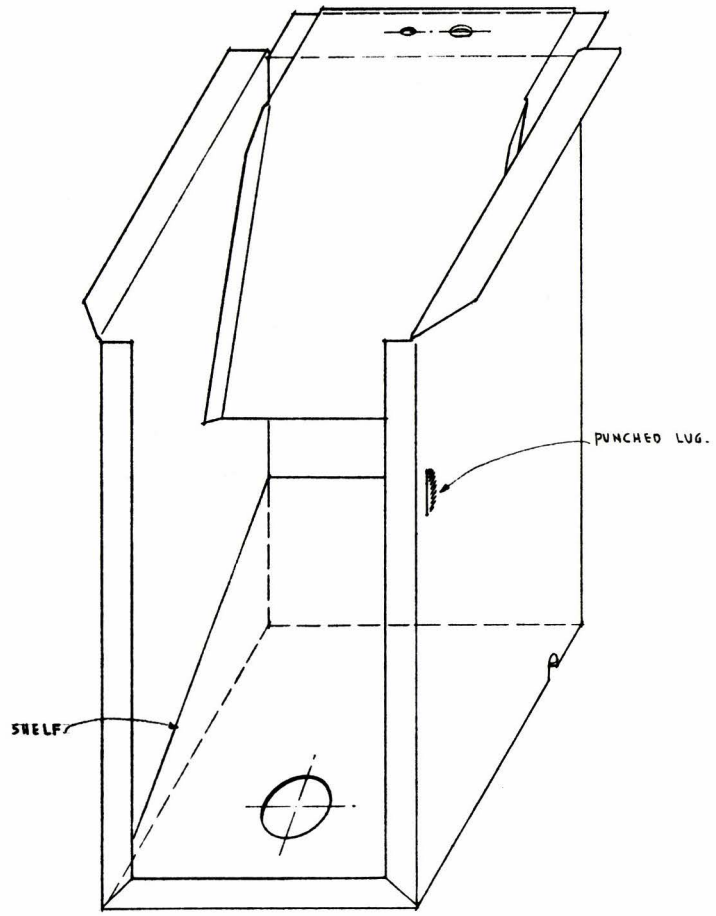
FACE FRONT OF TICKET BOX TO CAMP ROAD



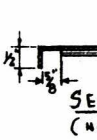
FRONT VIEW
SCALE: 6" = 1'-0"



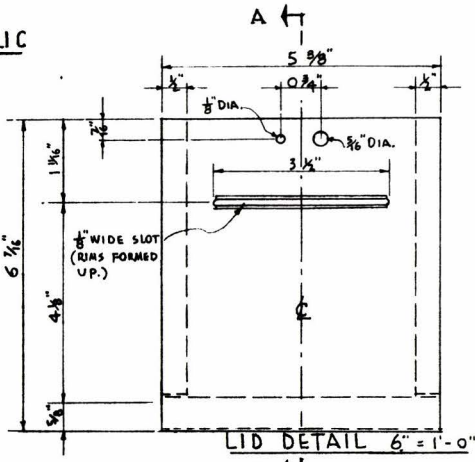
SIDE VIEW
SCALE: 6" = 1'-0"



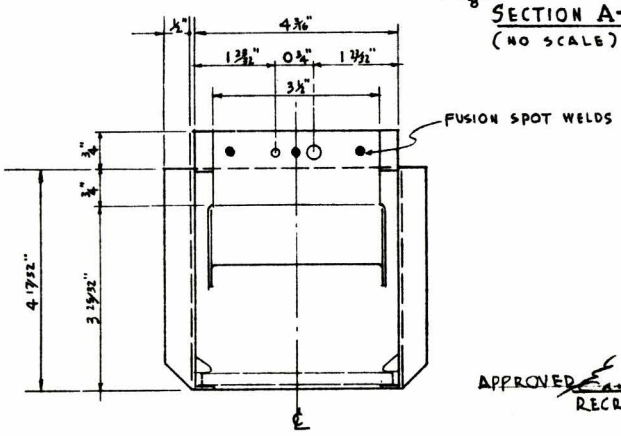
ISOMETRIC
9" = 1'-0"



SECTION A-A
(NO SCALE)



LID DETAIL 6" = 1'-0"



PLAN VIEW SCALE: 6" = 1'-0"

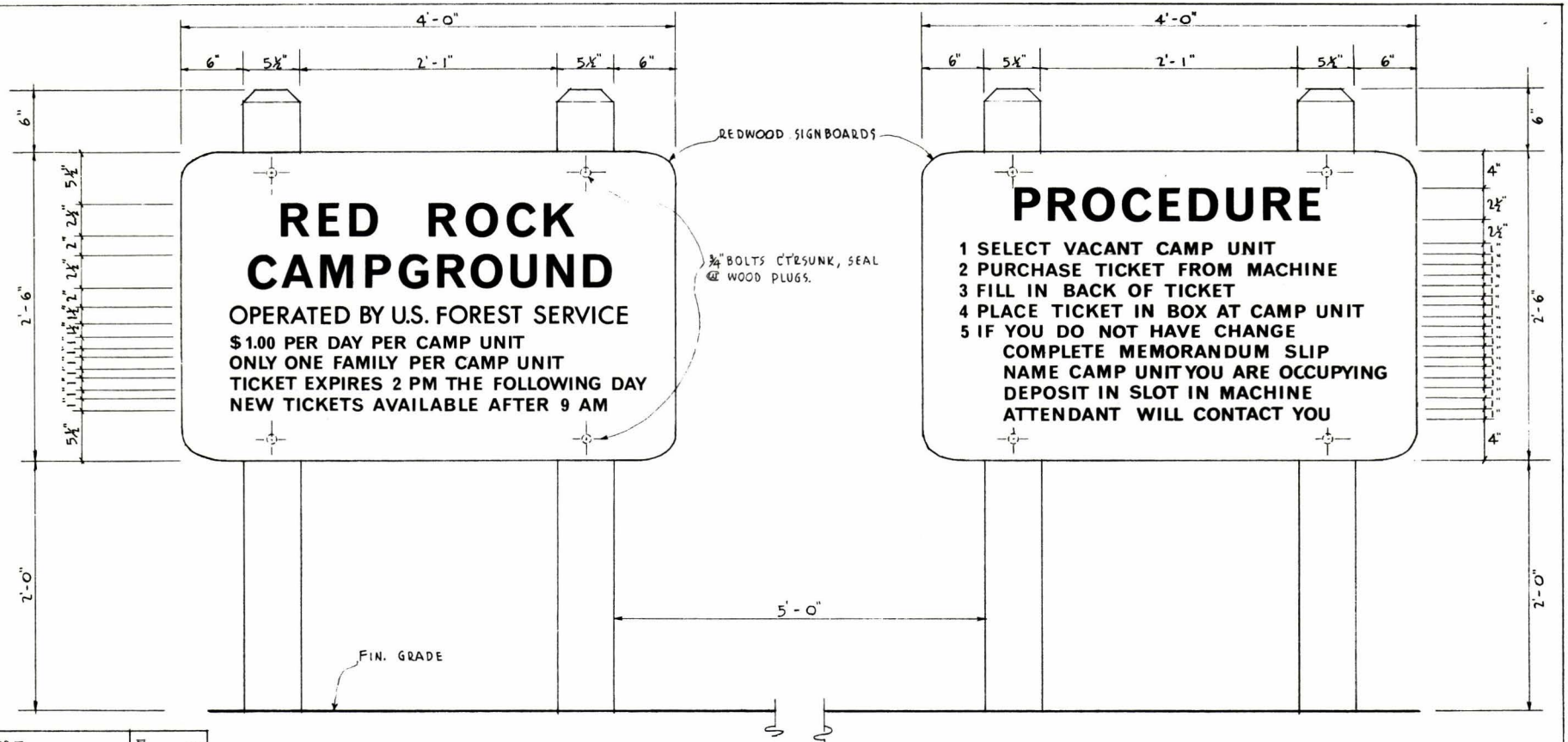
APPROVED _____
RECREATION

U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
REGION FIVE K. W. KENNEDY, REG. ENGINEER

CAMP UNIT TICKET BOX

DESIGNED R-5 DRAWN D.R. TRACED _____
SCALE - AS SHOWN CHECKED KWK
APPROVED _____ DATE 3-21-62
ACTG REGIONAL ENGINEER

BY-73-01



SIGNS FOR CHARGE CAMP & PICNIC GROUNDS

SCALE: 6" 1 FT

NOTE: POSTS TO BE 6" SQ. x 8'-0" HEART REDWOOD OR CEDAR. SIGNBOARDS TO BE 3" REDWOOD. THE TWO SIGNS AND TICKET MACHINE WILL BE LOCATED IN THE REGISTRATION AREA JUST INSIDE THE ENTRANCE OF THE CAMPGROUND. THE SIGNS TO BE SPACED 4' APART. THE TICKET MACHINE TO BE MIDWAY BETWEEN THE SIGNS & 1' IN FRONT OF THE SIGNS.

U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
REGION FIVE
K.W. KENNEDY, REG. ENGINEER

TICKET MACHINE INSTRUCTIONS

DESIGNED R-5 DRAWN D.R. TRACED
SCALE 1"=1'-0" CHECKED
APPROVED
REGIONAL ENGINEER DATE